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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/669,678	09/24/2003	Hyunjun Kim	884.939US1	4413
7590	07/01/2004		EXAMINER HA, NGUYEN T	
Schwegman, Lundberg, Woessner & Kluth, P.A. P.O. Box 2938 Minneapolis, MN 55402			ART UNIT 2831	PAPER NUMBER

DATE MAILED: 07/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application N . 10/669,678	Applicant(s) KIM ET AL.	
	Examiner Nguyen T Ha	Art Unit 2831	

-- Th MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
 4a) Of the above claim(s) 16-24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-7,9-12 and 14 is/are rejected.
- 7) ☐ Claim(s) 3,8,13 and 15 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 1-15 in the reply filed on 5/13/2004 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-2, 4-7 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by DuPre's et al. (US 5,880,925).

Regarding claim 1, DuPre' et al. disclose a capacitor (figures 5-6) comprising:

- at least one first vertically-oriented plate (58) having a first terminal (70) coupled to a first bottom side;
- at least one second vertically-oriented plate (60) having a second terminal (66) coupled to a second bottom side; and
- a dielectric body (42), wherein the first vertically-oriented plate and the second vertically-oriented plate are spaced apart and partially disposed with in the dielectric body (figure 5).

Regarding claim 2, DuPre's et al further disclose:

- a plurality of first vertically-oriented plates (58) coupled to the first terminal; and a plurality of second vertically-oriented plates (60) coupled to the

second terminal, wherein the plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates are spaced apart and partially disposed within the dielectric body (figure 5).

Regarding claim 4, DuPre's et al. disclose the plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates are substantially planar (figure 5).

Regarding claim 5, DuPre's et al. disclose the plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates are substantially rectangular (figure 5).

Regarding claim 6, DuPre's et al. disclose a capacitor (figures 5-6) comprising:

- at least one vertically-oriented plate (58) having a first terminal (70) coupled to a first bottom side;
- at least one second vertically-oriented plate (60) having a second terminal (66) coupled to a second bottom side; and
- a dielectric body (42) wherein the first vertically-oriented plate and the second vertically-oriented plate are spaced apart and disposed adjacent the dielectric body (figure 5).

Regarding claim 7, DuPre's et al. further disclose:

- a plurality of first vertically-oriented plates (58) coupled to the first terminal;
- a plurality of second vertically-oriented plates (60) coupled to the second terminal; and

- a plurality of dielectric bodies (62), wherein the plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates are spaced apart adjacent at least one of the plurality of dielectric bodies (figure 5).

Regarding claim 9, DuPre's et al. further disclose a plurality of pads (54) coupled to the first terminal, and a second plurality of pads (56) coupled to the second terminal.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 10-12 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over of DuPre's et al. (US 5,880,925) in view of Vercellotti et al. (US 5,317,309).

Regarding claim 10, DuPre's et al. disclose a capacitor (figures 5-6) comprising:

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- at least one first vertically-oriented plate (58) having a first terminal (70) coupled to a first bottom side and to the source terminal, at least one second vertically-oriented plate (60) having a second terminal (66) coupled to a second bottom side and to the return terminal, and a dielectric body (42), wherein the first vertically-oriented plate and the second vertically-oriented plate are spaced apart and disposed adjacent the dielectric body (figure 5).

DuPre's et al. lack : an electronic system comprising:

- a power supply having a source terminal and a return terminal;
- a receiver coupled to the power supply;
- an antenna coupled to the receiver.

Vercellotti et al. teach an electronic system (figure 2) comprising:

- a power supply (20) having a source terminal and a return terminal;
- a receiver (22) coupled to the power supply;
- an antenna (17) coupled to the receiver.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the DuPre's capacitor into the Vercellotti electronic system in order to improve the performance for the electronic system.

Regarding claim 11, the teaching of Vercellotti et al. includes the antenna comprises an omni-directional antenna (figure 2).

Regarding claim 12, the teaching of Vercellotti et al includes the receiver comprises a portion of a transceiver (11).

Regarding claim 14, DuPre's et al. further disclose:

- a plurality of first vertically-oriented plates (58) coupled to the first terminal;
- a plurality of second vertically-oriented plates (60) coupled to the second terminal; and
- a plurality of dielectric bodies (62), wherein the plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates are spaced apart adjacent at least one of the plurality of dielectric bodies (figure 5).

Allowable Subject Matter

6. Claims 3, 8, 13 and 15 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

With respect to claim 3, the prior art alone or in combination does not teach the limitation of a plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates have a height in the vertical direction that is greater than a horizontal thickness of the apparatus including a combined thickness of the plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates.

With respect to claim 8, the prior art alone or in combination does not teach the limitation of a vertical surface area of one of the plurality of first vertically-oriented plates is more than twice as large as a bottom surface area of a package housing the plurality of first vertically-oriented plates, the plurality of second vertically-oriented plates, and the plurality of dielectric bodies.

With respect to claim 13, the prior art alone or in combination does not teach the limitation of a circuit board coupled to the capacitor, wherein a planar surface of the circuit board is oriented in a substantially horizontal fashion, and wherein the at least one first vertically-oriented plate and the at least one second vertically-oriented plate are oriented in a substantially vertical fashion with respect to the planar surface.

With respect to claim 15, the prior art alone or in combination does not teach the limitation of a circuit board coupled to the capacitor, wherein a planar surface of the circuit board is oriented in a substantially horizontal fashion, and wherein the plurality of first vertically-oriented plates and the plurality of second vertically-oriented plates are oriented in a substantially vertical fashion with respect to the planar surface.

Citation Relevant of Prior Art

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
 - a. Hu et al. disclose electrically polar integrated capacitor and method of making.
 - b. Devoe et al. disclose an integrated broadband ceramic capacitor array.
 - c. Javanifard et al. disclose fingered capacitor in an integrated circuit.

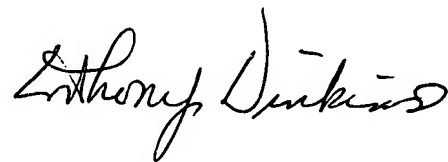
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nguyen T Ha whose telephone number is 571-272-1974. The examiner can normally be reached on Monday-Friday from 8:30AM to 6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext. 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nguyen T. Ha
June 25, 2004



ANTHONY DINKINS
PRIMARY EXAMINER